
Rosenthal VD, Kalenic S. Device-Associated Infections in Hospitals of 10 Developing Countries. In: Proceedings and Abstract of the 7th Annual Meeting of the International Federation of Infection Control; 2006 4th July; Spier Estate, Stellenbosch, South Africa; 2006. p. 35.

DEVICE ASSOCIATED INFECTIONS IN HOSPITALS OF 10 DEVELOPING COUNTRIES

DR VD ROSENTHAL * (Medical College of Buenos Aires) , DR S KALENIC (Clinical Hospital Centre Zagreb)

OBJECTIVE:

To determine the device associated infection rate, bacterial resistance, extra length of stay (LOS) and mortality at intensive care units (ICU) of hospital members of the INICC in Argentina, Brazil, Colombia, Croatia, India, Mexico, Morocco, Peru, Philippines, and Turkey.

METHODS:

We conducted prospective active targeted outcome surveillance in a cohort of patients admitted at 59 Adult ICUs at 48 hospitals members of the INICC. We applied definitions of the U.S. CDC-NNIS, and rates of device-associated-infection (DAI) were calculated per 100 ICU patients and per 1000 device-days.

RESULTS:

From 01/02 to 02/06, we enrolled 23,797 patients, representing 152,772 bed days. The overall health-care-associated-infection (HAI) rate was 13.9% and 21.6 per 1000 bed days.

Ventilator-associated pneumonia (VAP) represent 41.2% of all DAI (23.5 per 1000 ventilator-days), central-venous-catheter (CVC)-related bloodstream infections (BSI) 31.0% (12.1 per 1,000 CVC-days), and catheter-associated urinary tract infections (CA-UTI) 27.8% (8.3 per 1000 catheter-days).

83.8% of Staphylococcus aureus DAI were caused by methicillin-resistant strains, 51.3% of Enterobacteriaceae were resistant to ceftriaxone, and 50.5% to ceftazidime, 58.3% of Pseudomonas aeruginosa were resistant to fluoroquinolones, 51.6% to ceftazidime, and 34.9% to imipenem, and 3.3% of Enterococcus, sp was resistant to Vancomicine.

LOS of patients without DAI was 4.8 days. LOS of patients with VAP was 14.2 days, extra LOS 9.4 days; LOS of patients with CVC-BSI was 14.2 days, extra LOS 9.4 days. LOS of patients with CA-UTI was 13.2 days, extra LOS 8.3 days.

Extra Mortality of patients with VAP was 29.1%, (RR 2.79, 95% CI 2.49-3.12, P<0.001); for CVC- associated BSI was 17.0%, (RR 2.05, 95% CI 1.77-2.36, P<0.001); and for CAUTI was 21.3% (RR 2.31, 95% CI 1.97-2.71, P <0.001).

CONCLUSION:

HAI rate, bacterial resistance, LOS and mortality in our ICUs are a useful evidence to face the targeted program of infection control.